

ROYAL SCOTTISH FORESTRY SOCIETY
EXCURSION TO THE COWAL ARI MILL
AND
TO GLENBRANTER FOREST
ON
1st MAY 1956

ITINERARY

10.50 a.m.	Boat leaves Gourock
11.15 a.m.	Bus leaves Dunoon
11.45 a.m.	Arrive Ari Sawmill
12.45 p.m.	Leave Mill and proceed to lunch site at Allt Cam.
1 p.m. - 1.30 p.m.	Lunch
1.30 p.m. - 1.45 p.m.	Proceed to Compartment 170
1.45 p.m. - 2.30 p.m.	At Compartment 170 for demonstration of thinning, extraction and loading
2.30 p.m. - 2.55 p.m.	To viewpoint on Croft Road for general discussion.
3 p.m. - 3.30 p.m.	Walk through Compartments 132, 135 and 134 to see Sitka Spruce, Japanese Larch and Hybrid Larch planted in 1928
3.30 p.m.	Depart by bus for 4.10 p.m. steamer at Dunoon.

NOTES ON COWAL ARI SAWMILL

The stage has almost been reached when the main outlet for small-sized softwood thinnings, namely, production of mining timber, will be largely met from home-grown softwood and it has become increasingly obvious that further development is necessary in the marketing of products from this material. Hitherto, the products from small-sized thinnings have been pitprops and sawn mining timber, the latter prepared by a mobile mill, familiarly known as the "Scotch Bench", although in suitable cases, where the woodlands are conveniently situated, the thinnings have been transferred to fixed mills of a much more elaborate kind for conversion by precision-sawing into material for boxboard and buildings markets. These fixed mills are generally located near the main markets for this class of material, or at ports handling imported timber.

In the Cowal area of Argyllshire increasing quantities of small-sized softwood thinnings are coming on to the market and it was considered that this presented an opportunity for testing one method of developing new markets for this class of material.

Considerable thought was given by the Forestry Commission and the Directors to the type and location of this Mill; it was felt that a comparatively small unit situated within the forest area was preferable to a large unit in an industrial area far from the source of raw material. In addition, it was considered desirable, in view of the de-population of the Highland areas, to create further community life around a forest industry. Great support for this project has been given by the Argyll County Council, the Scottish Council and the North of Scotland Hydro Electric Board.

Special attention has been given in Sweden to the technique of handling and sawing small-sized logs, and the Ari-Sawmill, which was decided upon, is one of the products of the research of Swedish specialists.

Organisation of the Company

The Cowal Ari-Sawmilling Company Limited was, therefore, formed in July 1953, the finances of which were provided by Messrs. Adam Wilson & Sons, Ltd., Troon, Timber Merchants working in the area, and the Forestry Commission which is, of course, particularly interested in expanding the markets for thinnings. The two parties have nominated the Board of Directors of the Company, and an Independent Chairman has been appointed. The Forestry Commission's financial interest in the Company is in the form of a Debenture holding.

A site was feued from the Forestry Commission at Strachur and building commenced in October, 1953. An Ari-Sawmill unit was installed and a kiln of modern design was constructed for seasoning about 50% of the production. Despite difficulties in obtaining suitable labour, mainly because of lack of houses, sawing started in 1954, and production has progressively increased to date. The Mill is now in quantity production insofar as the present labour position will allow. The Mill is at present producing approximately 1,000 standards per annum and consumers are satisfied with the quality of the product. There are 21 employees, including the Sales and Office staff.

The Sawmill

The Mill is equipped with circular saws and consists of

- (a) Slabbing Saw
- (b) Re Saw
- (c) Edger

The timber is mechanically conveyed from the "breaking down" Saw to the Re-saw and from the Re-saw to the Edger.

The seasoning kiln attached is capable of dealing with 50 per cent of the output.

Markets

The timber is being sold mainly for case/crate making and housing construction. The sales area covered is Glasgow-Edinburgh and as far south as the Wash.

The Company has its own transport with specialist equipment for bringing the logs to the Mill and for deliveries of the sawn timber to consumers.

General Remarks

(a) Difficulties

These are almost entirely concerned with labour, due to inadequate housing to attract men into the area. The Argyll County Council has commenced building houses in Strachur, some of which will shortly become available to employees of the Company.

(b) Handling of Swedish Equipment

Our operators have mastered the technique of handling the Swedish machinery and are at least equal in efficiency to their opposite numbers in Sweden.

Plans for the Future

The main development in the future will be in respect of the processing of logs of shorter lengths and possibly of smaller diameter and this will probably take the form of additional plant for the manufacture of box shooks. This extension of activities will depend on the availability of suitable labour and it is hoped that the improvement in the housing situation, referred to above, will remedy this.

GLENBRANTER FOREST

GENERAL NOTES

Glenbranter Forest totals 8,726 acres and is formed from part of the Glenbranter Estate, acquired from Sir Harry Lauder in 1921 and from Ballemenach Farm, acquired in 1926. It is thus one of the oldest forests in the Conservancy, planting beginning in 1922. To date 3,443 acres have been planted and 138 acres remain to be planted.

Species

A high proportion of the stands are Sitka Spruce, with Norway Spruce as the main subsidiary. Areas of larch and other conifers are small. Productivity is very high and the stock quality good.

Rainfall

Annual rainfall averages approximately 95 inches.

Soils

The forest is generally on deep soils derived from the underlying mica schists.

Staff and Labour

At the present the staff is of three Foresters, three Assistant Foresters and over 100 workers. Among these workers are a proportion of approximately 1:2 of Contract workers, and there is in addition a great deal of ancillary employment by timber merchants, and the Engineering Branch.

Communications and Extraction

The Forest road programme is rapidly being completed and large areas of the Forest have now been broken up by roads at approximately 300 yard intervals. Extraction is, for the most part, by horse to the forest roads where it is loaded on lorries. There are at present some 20 horses working in the Forest, of which eight belong to the Forestry Commission and the remainder are owned by contractors. The use of tractors for extraction at Glenbranter is limited on account of the steep side slopes, but these machines are used from time to time either on less steep ground or when winching uphill is required. Ropeways have also been given a trial and have proved moderately successful in those areas where roadmaking is expensive and difficult.

Thinning

2,300 acres are under thinning and the annual area thinned is in the region of 600-700 acres.

Production and Utilisation

Maintenance work fell considerably behind during the war years, and it has been only in the past four years that the organisation of labour and equipment has been able to cope with the arrears of work.

The figures given here reflect the heavy production, but also the arrears of thinning and the check in utilisation as the extraction organisation struggled to keep up with the thinning programme.

Areas Thinned and Volume Felled

<u>F.Y. 52</u>		<u>F.Y. 53</u>		<u>F.Y. 54</u>		<u>F.Y. 55</u>	
<u>Area</u>	<u>Vol.</u>	<u>Area</u>	<u>Vol.</u>	<u>Area</u>	<u>Vol.</u>	<u>Area</u>	<u>Vol.</u>
<u>acs.</u>	<u>H.ft.</u>	<u>acs.</u>	<u>H.ft.</u>	<u>acs.</u>	<u>H.ft.</u>	<u>acs.</u>	<u>H.ft.</u>
215	109,822	491	214,284	717	399,278	215	139,522

Disposals

	<u>F.Y. 53</u>	<u>F.Y. 54</u>	<u>F.Y. 55</u>
Timber:	-	5,131	50,052
Pole Length:	60,284	96,080	232,658
Other:	8,409	11,357	24,467

NOTES ON COMPARTMENTS TO BE VISITED

Compartment 170

13 acres Sitka Spruce, planted in 1930

Average height 50' to top and 36' to 3" diameter

Brushed 1954-55

1st thinning now in progress

Estimated volume of thinnings = 850 c.ft (calculated by Tariff
per acre Table)

No. of thinnings per acre = 360 trees

Estimated volume of stand after thinning = 2,600 c.ft. per acre

Average tree = 3.72 c.ft.

No. of trees per acre after thinning = 700

Compartment 132

18 acres Sitka Spruce, planted in 1928

Average height 44 ft.

Thinnings

Volume Produced

1952

5,288 c.ft.

1954-55

12,677 " (average tree $3\frac{1}{2}$ c.ft)

Total:

17,965 c.ft.

Estimated standing volume per acre = 2,604 c.ft.

Average tree = 8 c.ft.

No. of trees per acre = 310

Compartment 135

1 acre Hybrid Larch, 1 acre Japanese Larch, planted in 1928

Average height 46 ft.

Thinnings

Volume Produced

1944

200 c.ft.

1947

200 "

1955

1,671 " (267 trees, average volume
per tree = 6.25 c.ft.)

Total:

2,071 c.ft.

Estimated volume standing per acre = 1,980 c.ft.

Average tree = 9 c.ft.

No. of trees per acre = 220

Compartment 134

14 acres Hybrid Larch, planted in 1928. Originally planted in mixture with Thuya (11,500 Hybrid Larch and 3,500 Thuya) which were suppressed and died out, remainder removed in clearings. Average height 55 ft.

<u>Thinnings</u>	<u>Volume Produced</u>	
1944	1,834 c.ft.	
1947	1,312 "	
1955	9,704 "	(1,171 trees, average volume 8.28 c.ft)
<u>Total:</u>	<u>12,850</u>	

Estimated volume standing per acre = 1,912 c.ft.

Average tree = 11 c.ft.

No. of trees per acre = 170